



Social Services

Mr. Robert Young
612 Rico Way
Grand Junction, Colorado 81501



Scott M. Matheson, Governor, State of Utah
Anthony W. Mitchell, Ph.D., Executive Director

533-6146

January 25, 1979

RE: Vanadium Mine
Wastewater Treatment

Dear Mr. Young:

We have reviewed the proposed Vanadium Queen mine water treatment plan and supportive information submitted November 24, 1978, regarding radium removal by ammonium hydroxide and ferric sulfate. As specified in Parts II and III of the wastewater disposal regulations and as discussed December 13, 1978, we need additional detailed information, as listed below:

1. Existing soil conditions and design seepage rate of the pond site after construction.
2. Method of embankment construction and compaction.
3. A treatment pond freeboard of 2 to 3 feet and embankment top width of 8 feet must be specified.
4. Location and details of the outfall structure.
5. A fence should be provided for isolation.
6. Runoff diversion measures to be taken above the pond.
7. Estimated volume and concentration of un-ionized NH_3 entering LaSal Creek.
8. Flow velocities in the section of pipeline from the mine to the pond will apparently be in excess of 15 ft/sec. What considerations will be given to insure protection of the pipe from problems associated with high velocity?

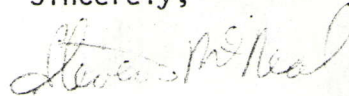
Division of Health
Environmental Health Services Branch
James D. Clise
Deputy Director of Health

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*Route to M. T. then
to Vanadium Queen
Till
Route to
Jim
Tou
ACT/037/037 Km f 1/30
JWS 1-31
TIS*

For your information, we are enclosing parts I-III of the wastewater disposal regulations. Your immediate attention to this matter will be appreciated.

Sincerely,



Steven McNeal
Public Health Engineer

SRM:rg

Enclosures

cc: State Oil, Gas & Mining
David Johnson, Sanitarian
EPA - Salt Lake City
EPA - Denver
Southeastern 208
BLM, Moab